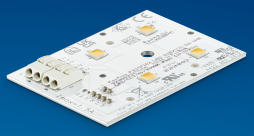
PHILIPS

Fortimo

LED

Fortimo FastFlex LED 2x2 DA HE



Datasheet

High efficiency in familiar form factor

Fortimo FastFlex 2x2 DA HE

Choose Fortimo FastFlex DA HE for high efficiencies in industry familiar form factors
Application:
- Road lighting
- Urban street lighting
- Flood and area lighting
- Tunnel lighting
- High bay lighting

Key features and benefits

- High efficiencies on LED module level in familiar form factors
- Various combinations of size, CRI and CCT available
- Mechanically backwards compatible with DA Gen 4+/Gen 5
- Reliability testing for OEM peace of mind
- Embedded module surge protection
- Philips system warranty

March 2025

indirect

100%
instant

Zhaga

Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo FastFlex LED 2x2/722 DA HE	8720169 284548 00	9290 039 67206	25
Fortimo FastFlex LED 2x2/727 DA HE	8720169 284562 00	9290 039 67306	25

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo FastFlex LED 2x2 DA HE	480	1050	1500	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T_c (case temperature at T_c point)	80	85	95	°C

* Nominal value at which typical performance is specified

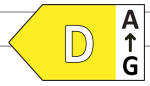
** Value at which life time is specified

*** Maximum value for safe operation, do not operate above this value

Optical characteristics - table per color (CCT)

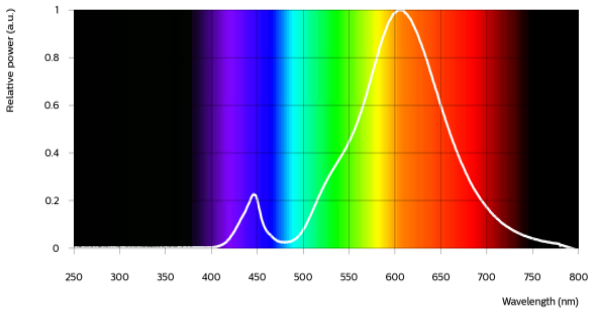
Fortimo FastFlex LED 2x2/722 DA HE

Parameter	Min	Typ	Max	Unit
Luminous flux	778	865	952	lm
Efficacy	145	160	177	lm/W
Correlated color temperature (CCT)		2200		K
Color coordinates (CIEx, CIEy)		(0.505, 0.417)		-
Color consistency			5	SDCM
CRI	70			
R9	-50			
Photobiological safety			RG1 unlimited	



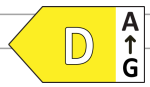
Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	722	lm	lm/W
80% I-nom 384mA	Tc 25 °C	746	173
	Tc-nom 80 °C	699	166
	Tc-max 95 °C	683	163
I-nom 480mA	Tc 25 °C	923	168
	Tc-nom 80 °C	865	160
	Tc-max 95 °C	845	159
I-max 1500mA	Tc 25 °C	2667	139
	Tc-nom 80 °C	2471	131
	Tc-max 95 °C	2402	128



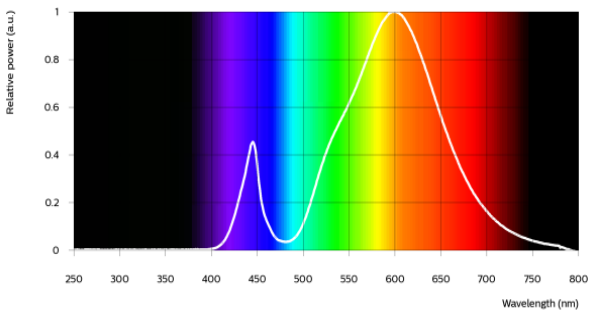
Fortimo FastFlex LED 2x2/727 DA HE

Parameter	Min	Typ	Max	Unit
Luminous flux	801	890	979	lm
Efficacy	149	165	182	lm/W
Correlated color temperature (CCT)		2700		K
Color coordinates (CIEx, CIEy)		(0.455, 0.409)		-
Color consistency			5	SDCM
CRI	70			
R9	-50			
Photobiological safety			RG1 unlimited	



Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	727	lm	lm/W
80% I-nom 384mA	Tc 25 °C	767	178
	Tc-nom 80 °C	719	171
	Tc-max 95 °C	702	167
I-nom 480mA	Tc 25 °C	950	173
	Tc-nom 80 °C	890	165
	Tc-max 95 °C	869	164
I-max 1500mA	Tc 25 °C	2745	143
	Tc-nom 80 °C	2544	135
	Tc-max 95 °C	2473	132



Electrical characteristics

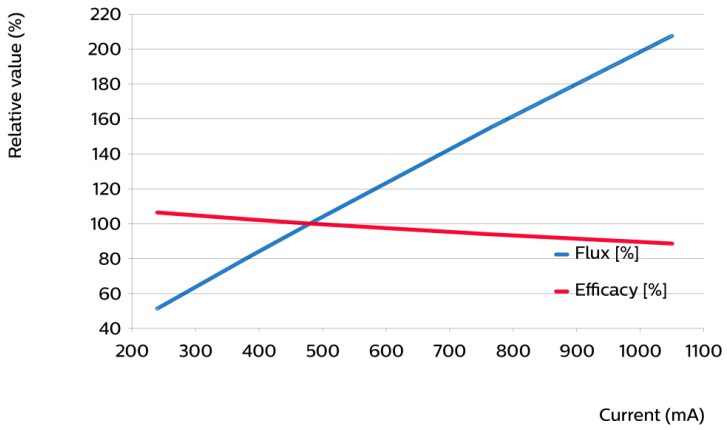
Parameter	Min	Typ	Max	Unit
Forward voltage	10.6	11.2	11.4	V
Power consumption	5.1	5.4	5.5	W = kWh/1000h
Number of modules in series per chain			10	
Number of modules in parallel			1	

Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%

Tuning information

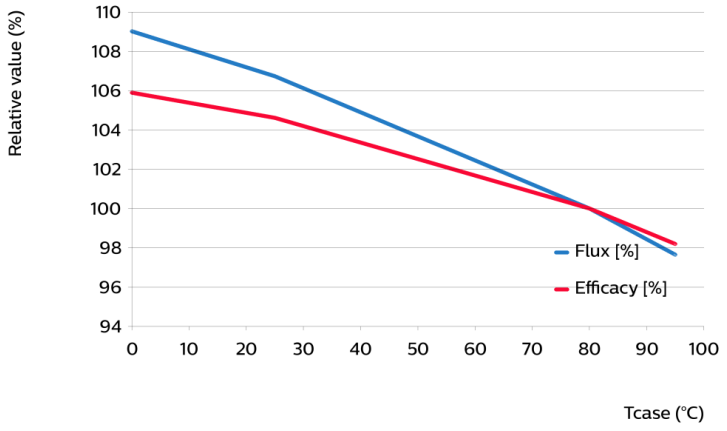
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
1050	208	89
765	155	94
480	100	100
384	81	102
240	51	106



Flux and efficacy versus temperature at Tc (at I nominal)

Tc [°C]	Flux [%]	Efficacy [%]
95	98	98
80	100	100
25	107	105
0	109	106



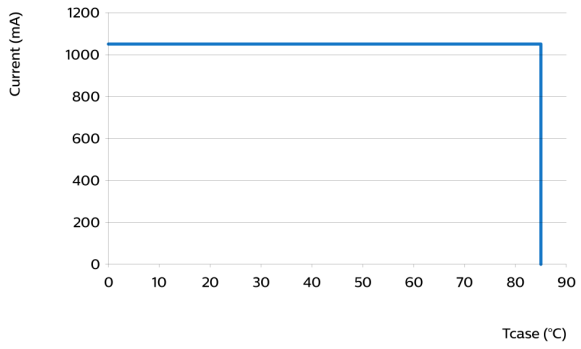
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
I 480mA	Tc 25°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc 65°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc 85°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
I 700mA	Tc 25°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc 65°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc 85°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
I 1050mA	Tc 25°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc 65°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc 85°C	>100	>100	>100	>100	>100	>100	>100	>100	>100

Lifetime

Parameter	Value	Unit
M70F50 nominal	>100000	hours
M70F50 life	>100000	hours

Performance Window

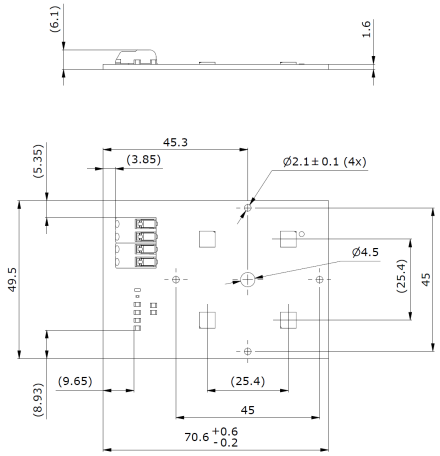


Wiring

Specification item	Value	Unit	Condition
Input wire cross-section	0.33…0.5	mm^2	stranded wire
	20…22	AWG	stranded wire
Input wire strip length	7.5…8.5	mm	
Input wire cross-section	0.25…0.75	mm^2	solid wire
	18…24	AWG	solid wire
Input wire strip length	7.5…8.5	mm	

Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	70.4	70.6	71.2	mm
Width	49.3	49.5	49.7	mm
Height including connector		6.1		mm
Height PCB		1.6		mm
Product mass		16.6		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		1500	mA
Case temperature (Tc-max)		95	°C
Power at rated Vf-max and I-max		18.9	W
ESD (direct contact)	8		kV
ESD (air)	15		kV
Working voltage		575	V_{dc}
Ambient temperature	-40	50	°C
Storage temperature	-20	80	°C

Application information

Certificates and Standards
CE
ENEC
cULus
ENEC+

Environmental
RoHS/REACH

Zhaga	Compliant*

*Book 15, 2x2-DA.

Application	
Overheating protection	NTC 15K Ohm B=3987K + 390 Ohm in series
Dimming	Yes

© 2025 Signify Holding, IBRS 10461, 5600VB, NL. All rights reserved. The information provided herein is subject to change, without notice. Signify does not give any representation or warranty as to the accuracy or completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

Philips and the Philips Shield Emblem are registered trademarks of Koninklijke Philips N.V. All other trademarks are owned by Signify Holding or their respective owners.
UK importer address: Signify Commercial UK Limited, 3 Guildford Business Park, GU2 8XG

18/03/2025

www.philips.com/oem